CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2009-_____

WASTE DISCHARGE REQUIREMENTS

FOR

FOSTER POULTRY FARMS

LIVINGSTON CHICKEN PROCESSING COMPLEX

WASTEWATER TREATMENT PLANT

MERCED COUNTY

TENTATIVE ORDER

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Central Valley Water Board) finds that:

1. Foster Poultry Farms, a California based corporation (hereafter Foster Farms or Discharger), operates a chicken processing complex (Complex) at 843 Davis Street in the City of Livingston, Merced County, within Sections 23 and 24, T6S, R11E, MDB&M, as shown on Attachment A, which is attached hereto and made part of this Order by reference.

2. The Complex consists of two processing plants, a rendering plant, two distribution centers, a truck maintenance shop, a delicatessen plant, two administrative buildings, and other ancillary and support facilities.

3. Wastewater from the Complex is currently discharged to the City of Livingston's Industrial Wastewater Treatment Facility (Facility), which provides wastewater collection and treatment exclusively for Foster Farms.

4. The Facility consists of 12 unlined ponds with limited aeration, encompassing approximately 83 acres adjacent to the Merced River. It is currently regulated by Waste Discharge Requirements (WDRs) Order No. 79-209. The WDRs limit wastewater discharge to 3.5 million gallons per day (mgd). Wastewater Reclamation Requirements (WRRs) Order No. 93-091 regulates the discharge of up to 2.4 mgd of effluent to 223 acres of adjacent lands (Reclamation Area) owned by Foster Farms.

5. On 26 October 2006, the Central Valley Water Board adopted Cease and Desist Order (CDO) No. R5-2006-0112 for violations of WDRs Order No. 79-209, including groundwater pollution, flow limit exceedances, and freeboard encroachment. The CDO, issued to the City of Livingston, includes tasks and a compliance schedule for construction of upgraded facilities to be complete by 15 January 2009. However, disagreements between the City of Livingston and Foster Farms over financing and treatment technology delayed construction. A Settlement Agreement, dated 16 November 2007, ended the litigation and established that Foster Farms would assume responsibility for construction of a new treatment facility on its own land. Under the agreement, the City Livingston will continue to operate its existing Facility until the Foster Farms treatment plant is complete. Upon completion and

initiation of operations at the new wastewater treatment plant, Foster Farms has agreed to remediate the existing Facility site as directed by the Central Valley Water Board. Investigation and cleanup of impacts from previous discharges will be addressed by a separate Cleanup and Abatement Order.

6. Foster Farms submitted a Report of Waste Discharge (RWD) dated 31 January 2008 for its new wastewater treatment plant.

Wastewater Treatment Plant

7. Foster Farms' new wastewater treatment plant (Foster Farms WWTP) will be constructed on approximately six acres of land adjacent to its existing chicken processing complex. The proposed treatment system will consist of a multistage activated sludge treatment process (i.e., a modified Bardenpho design). The WWTP will have a designed annual average daily flow of about 3.77 million gallons per day (mgd) with a maximum daily flow of about 5 mgd.

8. Wastewater generated from the various processes within the Complex will be combined and pre-treated using a Dissolved Air Flotation (DAF) System to remove suspended solids prior to entering the treatment system.

9. The treatment system will consist of two anoxic reactors, a nitrification reactor, an aerobic reactor, two clarifiers, and an effluent storage reservoir. Wastewater will be treated through a sequential series of aerobic and anoxic environments to provide nitrification and denitrification to remove nitrogenous compounds in the wastewater.

10. Wasted sludge from the treatment process will be stored in a 6-million gallon double-lined lagoon with leachate collection system. Clarified liquid will be decanted and returned to the inlet of the treatment system. According to the RWD, settled solids from the lagoon will be dredged and removed every six months. After drying and pressing to approximately 25% solids, the sludge will be hauled off for land application as a soil amendment or composting at Foster Farms' Manure Storage Facility about five miles south of Livingston.

11. The Foster Farms WWTP is intended to reduce BOD and nitrogen concentrations in the effluent. The table below presents estimated effluent characteristics for the new treatment system:

Constituent	Units	Effluent
Biochemical Oxygen Demand	mg/L	16
Chloride	mg/L	< 150
Electrical Conductivity (EC)	µmhos/cm	< 900
Total Dissolved Solids (TDS)	mg/L	< 624
Total Nitrogen	mg/L	< 10
Total Suspended Solids	mg/L	20

12. The new treatment system is not designed to reduce concentrations of inorganic constituents. However, according to the RWD, Foster Farms will implement a salinity control plan in conjunction with construction of the new WWTP, which is expected to reduce the EC and TDS of the effluent.

13. A recent study conducted by Condor Earth Technologies, Inc. (Condor) compared TDS versus fixed dissolved solids (FDS) as part of a salinity evaluation to establish a recommended salinity limitation for the new WWTP. The Study shows that organic compounds contribute approximately 30% to the TDS of the discharge.

14. Treated wastewater will be disposed of via a combination of percolation and reclamation. Discharge from the new WWTP will be applied to approximately 223 acres in the current Reclamation Area, which will be cropped with corn and oats during the summer. Foster Farms has stated that it will not apply additional fertilizer to the fields.

15. The Reclamation Area comprises Assessor's Parcel Numbers 240-110-14, 240-200-29, 470-900-03, 470-900-07, 470-900-25, 470-900-29, 471-000-25, 471-000-33, 471-200-05, and 474-600-03. Attachment B, attached hereto and made part of this Order by reference, depicts a plan view of the Foster Farms WWTP and the Reclamation Area.

16. According to the RWD, effluent will be applied to individual fields approximately 10 acres in size within the Reclamation Area on a rotating basis with resting periods between applications of three or more days. Assuming an average BOD concentration of 16 mg/L the instantaneous and cyclic BOD loading rate at the maximum daily flow rate of 5 mgd would be about 66 and 22 lbs/acre/day, respectively, which are both below the USEPA recommended rate of 100 lbs/acre/day according to publication No. 625/3-77-0007, *Pollution Abatement in the Fruit and Vegetable Industry*.

17. During wet weather, treated effluent will be stored in a 35 million gallon unlined storage reservoir. The reservoir will have sufficient storage capacity to provide for approximately seven days of storage at the average daily flow rate plus precipitation from a storm event with a 100-year return frequency.

18. Domestic wastewater from the Complex is discharged separately to the City of Livingston's municipal sewer system.

Site-Specific Conditions

19. Foster Farms WWTP and Reclamation Area are in an arid climate characterized by hot dry summers and mild winters. The rainy season generally extends from November through March. Occasional rains occur during the spring and fall months, but summer months are dry. Average annual precipitation and evaporation in the area are about 11.8 inches and 49.4 inches, respectively, according to information published by the California Department of Water Resources (DWR).

20. According to the USDA Natural Resources Conservation Service *Soil Survey of Merced Area, 1950*, soils in the area are primarily Delhi sand and Delhi loamy fine sand. These soils are described as excessively well drained, coarse textured and rapidly permeable. Both soils are identified as Class IVe-4 soils with low water holding capacity and are best suited for growing deep rooted crops. Primary crops grown in these soils include grapes, melons, orchards, and sweet potatoes. Other soils in the area include Hanford fine sandy loam and Grangeville loam designated as Class I and Class IIw-2 soils, which have little or no restrictions on cultivation.

21. Land use in the vicinity is primarily agricultural or light industrial. South and east of the Complex is a residential area. Primary crops grown in the area include almonds, sweet potatoes, and grapes. Other crops such as nectarines, peaches, rice, and strawberries are also grown in the area according to DWR land use data for Merced County published in 2002. Irrigation water is supplied by a combination of groundwater and surface water from the Merced River.

22. Storm water at the Complex is collected and diverted into onsite storm water basins. The Discharger is not required to obtain coverage under a National Pollutant Discharge Elimination System general industrial storm water permit since all storm water runoff is retained onsite and does not discharge into a water of the United States.

23. According to Federal Emergency Management Agency (FEMA) maps, Foster Farms WWTP and Reclamation Area lay outside of the 500-year flood zone.

Groundwater Considerations

24. Regional groundwater underlying the area is first encountered at about 50 feet below ground surface (bgs) and flows south-westward according to information in *Lines of Equal Elevation of Water in Wells in Unconfined Aquifer*, published by DWR in Spring 2004. According to groundwater data from existing monitoring wells in the Reclamation Area, there is a groundwater mound approximately four feet high centered near monitoring well MW-4R with the groundwater gradient directed radially outward from this point.

25. Source water for the Complex is provided by the City of Livingston from eight active water supply wells. Source water characteristics provided in the RWD include an average EC of 350 µmhos/cm, TDS of 240 mg/L, nitrate as nitrogen of 3 mg/L, and a chloride of 24 mg/L.

26. Proximity to the Merced River makes groundwater in the vicinity of the Reclamation Area of high quality. Previous WDRs and groundwater data from DWR wells in proximity to the site indicates ambient water quality of first-encountered groundwater is good to excellent with an EC less than 500 µmhos/cm.

27. The current groundwater-monitoring network consists of 19 monitoring wells; 9 in and around the Livingston Facility, and 10 in and around the Reclamation Area fields.

28. Monitoring data from monitoring wells in the vicinity of the Reclamation Area and the Livingston Facility indicate that first-encountered groundwater has been significantly affected by the existing discharge. As a whole, the monitoring well network shows a clear trend of increasing TDS, nitrate, chloride, and other waste constituents. Nitrate in groundwater is above the Department of Public Health primary drinking water standard of 10 mg/L. A summary of groundwater monitoring results shows the following average values for constituents in all Reclamation Area groundwater monitoring wells for the period of 2006 through 2007:

Constituents	Units	Average	Range
Chloride	mg/L	120	50 - 140
EC	µmhos/cm	1000	760 - 1200
Hardness as CO3	mg/L	220	140 - 350
Nitrate as N	mg/L	20	8.3 - 36
pH	std. unit	6.2	5.8 - 6.7
Sodium	mg/L	130	33 - 180
Sulfate	mg/L	170	130 - 210
TDS	mg/L	740	610 - 860
TKN	mg/L	3.9	0.7 - 21
Total Nitrogen	mg/L	23	13 - 36

29. In 2007, groundwater beneath the Reclamation Area contained EC and TDS concentrations ranging from 813 to 1,427 µmhos/cm and 613 to 950 mg/L, respectively. The lowest concentrations were in monitoring wells MW-1R and MW-10R, south and east of the Reclamation Area and furthest from the groundwater mound in the vicinity of MW-4R and the existing ponds at the Livingston Facility.

Basin Plan, Beneficial Uses and Regulatory Considerations

30. The *Water Quality Control Plan, for the Sacramento and San Joaquin River Basins, Fourth Edition* (revised October 2007) (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Board. Pursuant to Section 13263(a) of the California Water Code (CWC), these waste discharge requirements implement the Basin Plan.

31. The Foster Farms WWTP and Reclamation Area lie within the San Joaquin Basin, specifically the Merced Hydrologic Area (No. 535.80), as depicted on interagency hydrologic maps prepared by the California Department of Water Resources (DWR) in 1986. The Basin Plan designates the beneficial uses of groundwater as municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.

32. Surface water drainage is to the Merced River. The Basin Plan designates the beneficial uses as: municipal and domestic supply, agricultural supply, water contact recreation, non-contact water recreation, warm and cold freshwater habitat, and wildlife habitat.

33. The Basin Plan includes a water quality objective for chemical constituents that, at a minimum, requires waters designated as domestic or municipal supply to meet the MCLs specified in Title 22, California Code of Regulations. The Basin Plan's incorporation of these provisions by reference is prospective, and includes future changes to the incorporated provisions as the changes take effect. The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.

34. The Basin Plan establishes narrative water quality objectives for Chemical Constituents, Tastes and Odors, and Toxicity. The Toxicity objective, in summary, requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial uses. Quantifying a narrative water quality objective requires a site specific evaluation of those constituents that have the potential to impact water quality and beneficial uses.

35. The Water Quality Control Plan for the Tulare Lake Basin, Second Edition, contains salt management requirements that have been successfully implemented for several decades. Widespread and long-term compliance with these requirements justify them as appropriate best practicable control measures for salinity applicable to discharges in the Sacramento River and San Joaquin River Basins. The Tulare Basin Plan establishes several salt management requirements, including:

    a. The incremental increase in salts from use and treatment must be controlled to the extent possible. The maximum EC shall not exceed the EC of the source water plus 500 µmhos/cm, or a maximum of 1,000 µmhos/cm. When the source water is from more than one source, the EC shall be a weighted average of all sources.

    b. Discharges to areas that may recharge good quality groundwater shall not exceed an EC of 1,000 µmhos/cm, a chloride content of 175 mg/L, or a boron content of 1.0 mg/L.

    These effluent limits are considered best practicable treatment or control (BPTC).

36. The Basin Plan states that when compliance with a narrative objective is required to protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations in order to implement the narrative objective.

37. In the absence of specific numerical water quality limits, the Basin Plan methodology is to consider any relevant published criteria. General salt tolerance guidelines, such as *Water Quality for Agriculture* by Ayers and Westcot and similar references indicate that yield reductions in nearly all crops are not evident when irrigating with water having an EC less than 700 µmhos/cm. There is, however, an eight- to ten fold range in salt tolerance for agricultural crops. It is possible to achieve full yield potential with waters having EC up to

3,000 µmhos/cm if the proper leaching fraction is provided to maintain soil salinity within the tolerance of the crop.

38. The list of crops in Finding 21 is not intended as a definitive inventory of crops that are or could be grown in the area affected by the discharge, but is representative. With good to excellent quality groundwater and Class I and Class IIw-2 soils (e.g., Hanford fine sandy loam and Grangeville loam) the area adjacent to the WWTP is suitable for most crop types including sensitive or moderately salt sensitive crops such as strawberries, almonds, and stone fruit.

39. From the above information regarding soil conditions and crop types, the most appropriate groundwater limit for EC to implement the Basin Plan narrative water quality objective to protect agricultural beneficial uses would be 700 µmhos/cm. However, based on existing conditions, groundwater down-gradient of the discharge will not be able to immediately meet this limit. Further, Foster Farms has questioned whether ambient water quality for the site is as low as 700 µmhos/cm because of historical agricultural practices in and around the Reclamation Area.

40. While salt-sensitive crops such as strawberries can be grown in the area, almonds and sweet potatoes appear to be the most prevalent salt-sensitive crops grown in the area. Based on the information in the *Western Fertilizer Handbook*, almonds and sweet potatoes can tolerate irrigation water with an EC up to 1,000 µmhos/cm with no reduction in yield, and irrigation water with an EC less than 1,400 µmhos/cm would result in a 10% reduction in yield.

41. Considering guidelines from reference documents such as Ayers and Wescott's *Water Quality for Agriculture* and the *Western Fertilizer Handbook* as well as information regarding site-specific soil types, irrigation methods, and crops (predominantly almonds and sweet potatoes), an appropriate groundwater interim limit to preclude impairment of agricultural beneficial uses would be an EC of 1,200 µmhos/cm (halfway between 1,000 and 1,400 µmhos/cm, which would result in less than a 10% reduction in yield). In addition, an EC of 1,200 µmhos/cm is within the recommended and upper range established as secondary MCL's for drinking water of 900 to 1,600 µmhos/cm. Further study is required to establish a final groundwater limit based on ambient groundwater quality.

Antidegradation Analysis

42. State Water Resources Control Board Resolution No. 68-16 ("Policy with Respect to Maintaining High Quality Waters of the State") (hereafter Resolution 68-16) prohibits degradation of groundwater unless it has been shown that:

    a. The degradation is consistent with the maximum benefit to the people of the State;

    b. The degradation will not unreasonably affect present and anticipated future beneficial uses;

c. The degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives; and

d. The discharger employs BPTC to minimize degradation.

43. Constitutes of concern that have the potential to degrade groundwater include, in part, organics, nutrients, and salts. However, the discharge will likely not affect the beneficial uses of groundwater because:

a. For BOD, the discharge will be treated to better than secondary standards and the instantaneous and cycle average loading rates to the Reclamation Area are below the USEPA recommended rate of 100 lbs/acre/day according to publication No. 625/3-77-007, *Pollution Abatement in the Fruit and Vegetable Industry*. Therefore, no degradation due to organic loading is expected to occur.

b. For nitrogen, the WWTP is expected to reduce effluent nitrogen concentrations to below 10 mg/L, which is less than the drinking water MCL for nitrate, which is considered BPTC for nitrogen and should preclude further degradation of groundwater for nitrates. Groundwater down-gradient of the discharge should eventually be able to meet final groundwater limits that are consistent with all beneficial uses.

c. For salinity, as discussed in Finding 13, a recent study identified that organic compounds contribute approximately 30% to the TDS of the discharge. The Central Valley Water Board's 2007 *Management Guidance for Salinity in Waste Discharge Requirements*, recommends that organic TDS should be considered separate from mineralized TDS (i.e., sodium, chloride, etc.) since sources, treatment, and environmental impacts are very different.

This Order sets a FDS limit of 550 mg/L, which would equate to an average EC between 850 and 925 µmhos/cm. Though the salinity of the discharge will still be greater than 500 µmhos/cm (considered as ambient background water quality), it will be less than the EC limit of 1,000 µmhos/cm accepted as BPTC for industrial discharges that discharge to land with good quality groundwater.

44. Economic prosperity of valley communities and associated industry is of maximum benefit to the people of the State, and therefore sufficient reason exists to accommodate growth and groundwater degradation around the new Foster Farms WWTP and Reclamation Area, provided that the terms of the Basin Plan are met. Degradation of groundwater quality by some of the typical waste constituents released with discharge from a food processing wastewater utility after effective source reduction, treatment and control, and considering the best efforts of the Discharger and magnitude of degradation, is of maximum benefit to the people of the State. Foster Farms aids in the economic prosperity of the region by direct employment of approximately 3,500 people. In addition, it provides incomes and support for valley poultry farms and associated trucking firms, and provides a tax base for local and county governments.

45. While first encountered groundwater beneath the Reclamation Area has been degraded by previous discharges, the new Foster Farms WWTP will be a significant improvement over the existing unlined pond system and the resulting reduction in waste concentrations in the discharge is expected to improve groundwater quality over time.

46. The reduction in the discharge of nitrogen resulting from the project, and the implementation of a Salinity Control Plan to control and reduce salts to the extent feasible are consistent with BPTC and for the maximum benefit of the people of the State, in accordance with the Antidegradation Policy.

Treatment and Control Practices

47. The Project as described in Findings 7 through 12, once completed, will provide treatment and control of the discharge that incorporates:

    a. Pre-treatment to remove suspended solids, oil, and grease from the wastewater.
    b. Treatment to reduce nitrogen concentrations in the discharge to less than 10 mg/L.
    c. Double-lined sludge storage lagoon with leachate collection and removal system.
    d. Recycling of wastewater on crops.

48. This Order establishes interim groundwater limitations that will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds water quality objectives set forth in the Basin Plan. This Order includes a monitoring and reporting program that contains groundwater monitoring to assure that the highest water quality consistent with the maximum benefit to the people of the State will be achieved.

Water Recycling Criteria

49. State Water Board Resolution No. 77-1, Policy with Respect to Water Recycling in California, encourages recycling projects that replace or supplement the use of fresh water, and the Water Recycling Law (California Water Code Section 13500-13529.4) declares that utilization of recycled water is of primary interest to the people of the State in meeting future water needs.

50. The Basin Plan encourages recycling on irrigated crops wherever feasible and indicates that evaporation of recyclable wastewater is not an acceptable permanent disposal method where the opportunity exists to replace an existing use or proposed use of fresh water with recycled water.

51. The California Department of Public Health (DPH), which has primary statewide responsibility for protecting public health, has established statewide criteria in Title 22, California Code of Regulations, Section 60301 et seq., (hereafter Title 22) for the use of recycled water and has developed guidelines for specific uses. Revisions of the water recycling criteria in Title 22 became effective on 2 December 2000. The revised Title 22 expands the range of allowable uses of recycled water, establishes criteria for these uses, and clarifies some of the ambiguity contained in the previous regulations. Although the

WWTP does not treat domestic waste, some of the guidelines in Title 22 may still be applicable.

Designated Waste and Title 27

52. CWC Section 13173 defines designated waste as either:

    a. Hazardous waste that has been granted a variance from hazardous waste management requirements pursuant to Section 25143 of the Health and Safety Code.

    b. Nonhazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions as a waste management unit, could be released in concentrations exceeding applicable water quality objectives or could reasonably be expected to affect beneficial uses of the waters of the state contained in the appropriate state water quality control plan.

53. Release of designated waste is subject to full containment pursuant to the requirements of Title 27, CCR, Section 20005 et seq. (hereafter "Title 27"). Title 27 Section 20090(b) exempts discharges of designated waste to land from Title 27 containment standards provided the following conditions are met:

    a. The applicable regional water board has issued waste discharge requirements, or waived such issuance;

    b. The discharge is in compliance with the applicable basin plan; and

    c. The waste is not hazardous waste and need not be managed according to Title 22, CCR, Division 4.5, Chapter 11, as a hazardous waste.

    The discharge of effluent and the operation of treatment or storage facilities associated with a food processing facility can be allowed without requiring compliance with Title 27, provided any resulting degradation of groundwater is in accordance with the Basin Plan. With treatment to remove organics and reduce nitrogen to less than water quality objectives (i.e., < 10 mg/L), and with an EC of less than 1,000 µmhos/cm, the discharge authorized by this Order is in accordance with the Basin Plan and the Antidegradation Policy and is therefore exempt from Title 27.

CEQA

54. On 3 March 2009, the City of Livingston, in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et, seq.) and the State CEQA guidelines (Title 14, Division 6, California Code of Regulations, as amended) adopted a Mitigated Negative Declaration for the construction and operation of a new wastewater treatment facility for the Foster Poultry Farms Livingston Chicken Processing Complex. The Mitigated Negative Declaration determined that the project would have a less than significant impact on water quality since the project, as proposed would reduce or maintain concentrations of constituents in the wastewater discharge. Specifically nitrogen concentrations in the discharge will be reduced to < 10 mg/L, which is a significant

improvement from the existing discharge and is expected to improve groundwater quality beneath the Reclamation Area.

55. The Central Valley Water Board, as a responsible agency pursuant to CEQA, reviewed and concurrs with the conclusions in the Mitigated Negative Declaration that the project would be an improvement over the existing discharge. Although the Mitigated Negative Declaration did not include any specific mitigation measures to protect water quality. This Order contains specific conditions intended to mitigate or avoid any adverse impacts to water quality, specifically this Order:

    a. Sets effluent limits for BOD, TSS, total nitrogen, chloride, and FDS;

    c. Establishes interim groundwater limits;

    d. Establishes a monitoring and reporting program; and

    e. Requires the Discharger to prepare and implement a Salinity Control Plan, a groundwater study, and cropping plan.

General Findings

56. Pursuant to CWC Section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

57. CWC Section 13267(b) states that: “In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

58. The technical reports required by this Order and the attached Monitoring and Reporting Program No. R5-2009-____ are necessary to assure compliance with these waste discharge requirements. The Discharger operates the facility that discharges the waste subject to this Order.

59. The California Department of Water Resources set standards for the construction and destruction of groundwater wells, as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 94-81* (December 1981). These standards, and any more stringent standards adopted by the State or county pursuant to CWC Section 13801, apply to all monitoring wells.

60. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.

Public Notice

61. The Discharger and interested agencies and persons have been notified of the intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

62. All comments pertaining to the discharge were heard and considered in a public meeting.

IT IS HEREBY ORDERED that, pursuant to Sections 13263 and 13267 of the California Water Code, Foster Poultry Farms, and its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. Prohibitions:

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.

2. Bypass or overflow of untreated wastes, except as allowed by Provision E.2 of Standard Provisions and Reporting Requirements, is prohibited.

3. Discharge of waste classified as 'hazardous', as defined in Section 2521(a) of Title 23, California Code of Regulations, Section 2510 et seq., is prohibited. Discharge of waste classified as 'designated', as defined in California Water Code Section 13173, in a manner that causes violation of groundwater limitations, is prohibited.

4. Application of treated wastewater in a manner or location other than that described herein is prohibited.

B. Effluent Limitations:

1. The discharge shall not exceed the following effluent limitations:

Constituents	Units	Monthly Average	Daily Maximum
BOD_5	mg/L	40	80
TSS	mg/L	40	80
Nitrate as Nitrogen	mg/L	10	---
Chloride	mg/L	175	---

2. The annual flow-weighted average fixed dissolved solids (FDS) of the discharge shall not exceed 550 mg/L as calculated on a monthly basis.

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C. Discharge Specifications:

1. The discharge shall not exceed an average flow rate of 3.77 million gallons per day (mgd) calculated as an annual average, or a maximum daily flow rate of 5.0 mgd.

2. All conveyance, treatment, storage, and disposal units shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

3. Objectionable odors shall not be perceivable beyond the limits of the WWTP or the Reclamation Area at an intensity that creates or threatens to create nuisance conditions.

4. Wastewater storage ponds shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation and ancillary inflow and infiltration during the winter. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

5. On or about 1 October of each year, the available storage pond capacity shall at least equal the volume necessary to comply with Discharge Specification C.4.

6. Storage ponds shall be managed to prevent breeding of mosquitoes. In particular,

   a. An erosion control plan should assure that coves and irregularities are not created around the perimeter of the water surface.

   b. Weeds shall be minimized through control of water depth, harvesting, and herbicides.

   c. Dead algae, vegetation, and other debris shall not accumulate on the water surface.

   d. Vegetation management operations in areas in which nesting birds have been observed shall be carried out either before or after, but not during, the 1 April to 30 June bird nesting season.

7. No waste constituent shall be released or discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of groundwater limitations.

D. Reclamation Area Specifications:

1. The perimeter of the Reclamation Area shall be graded to prevent ponding along public roads or other public areas and prevent runoff onto adjacent properties not owned or controlled by the Discharger.

2. No physical connection shall exist between wastewater piping and any domestic water supply or domestic well, or between wastewater piping and any irrigation well that does not have an air gap or reduced pressure principle device.

3. The Reclamation Area shall be managed to prevent breeding of mosquitoes. More specifically:

   a. All applied irrigation water must infiltrate completely within a 48-hour period;

   b. Ditches not serving as wildlife habitat should be maintained free of emergent, marginal, and floating vegetation; and

   c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store recycled water.

E. Solids Specifications

1. Any handling and storage of solids and sludge at the Foster Farms WWTP or Reclamation Area shall be temporary, and controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate groundwater limitations of this Order.

2. Collected screenings, sludges, and other solids removed from the liquid waste shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27. Removal for further treatment, disposal, or reuse at sites (i.e., landfill, rendering plants, composting sites, soil amendment sites) operated in accordance with a valid Order issued by a regional water quality control board will satisfy this specification.

3. Any proposed change in solids use or disposal practice shall be reported to the Executive Officer at least **90 days** in advance of the change.

F. Interim Groundwater Limitations:

1. Release of waste constituents from any treatment or storage component associated with the discharge shall not cause or contribute to groundwater:

   a. Containing constituent concentrations in excess of the concentrations specified below or natural background quality, whichever is greater:

      (i) Nitrate as nitrogen of 10 mg/L.

      (ii) Electrical Conductivity of 1,200 µmhos/cm.

      (iii) Total Coliform Organisms of 2.2 MPN/100 mL.

      (iv) For constituents identified in Title 22, the MCLs quantified therein.

   b. Containing taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

G. Provisions:

1. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991, which are part of this Order. This attachment and its individual paragraphs are referred to as *Standard Provisions*.

2. The Discharger shall comply with Monitoring and Reporting Program (MRP) No. R5-2009-____, which is part of this Order, and any revisions thereto as adopted by the Central Valley Water Board or approved by the Executive Officer. The submittal date shall be no later than the submittal date specified in the Monitoring and Reporting Program for Discharger self-monitoring reports.

3. The Discharger shall keep at the Facility a copy of this Order, including its MRP, Information Sheet, attachments, and Standard Provisions, for reference by operating personnel. Key operating personnel shall be familiar with its contents.

4. The Discharger must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This Provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger only when the operation is necessary to achieve compliance with the conditions of the Order.

5. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. To demonstrate compliance with sections 415 and 3065 of Title 16, CCR, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

6. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Accordingly, the Discharger shall submit to the Central Valley Water Board on or before each report due date the specified document or, if an action is specified, a written report detailing evidence of compliance with the date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

7. In the event of any change in control or ownership of land or waste treatment and storage facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board office.

8. To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the address and telephone number of the persons responsible for contact with the Central Valley Water Board and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.

9. At least **90 days** prior to termination or expiration of any agreement involving a recycled water use area that may jeopardize compliance with this Order due to lack of disposal capacity, the Discharger shall notify the Executive Officer in writing of the situation and of what measures have been taken or are being taken to ensure full compliance with this Order.

10. As a means of discerning compliance with Discharge Specification C.3, the dissolved oxygen (DO) content in the upper one foot of any wastewater pond shall not be less than 1.0 mg/L for three consecutive days. Should the DO be below 1.0 mg/L during a weekly sampling event, the Discharger shall take all reasonable steps to correct the problem and commence daily DO monitoring in all affected ponds until the problem has been resolved. If unpleasant odors originating from affected ponds are noticed in developed areas, or if the Discharger receives one or more odor complaints, the Discharger shall report the findings in writing within 5 days of that date and shall include a specific plan to resolve the low DO results to the Central Valley Water Board within 10 days of that date.

11. The pH of the discharge shall not be less than 6.5 or greater than 8.3 pH units for more than three consecutive 24-hour composite sampling events. In the event that the pH of the discharge is outside of this range for more than three consecutive sampling events, the Discharger shall submit a technical evaluation in its monthly SMRs documenting the pH of the blended discharge to the reclamation area, and if necessary demonstrate that the effect of the discharge on soil pH will not exceed the buffering capacity of the soil profile.

12. The Discharger shall maintain and operate all ponds sufficient to protect the integrity of containment levees and prevent overtopping or overflows. Unless a California civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard in any pond shall never be less than two feet (measured vertically). As a means of management and to discern compliance with this Provision, the Discharger shall install and maintain in each

pond permanent markers with calibration that indicates the water level at design capacity and enables determination of available operational freeboard.

13. **By 1 December 2009,** submit a Salinity Control Plan, with salinity source reduction goals and a time schedule to meet the goals (prior to completion of the new WWTP). The control plan should also identify any additional methods that could be used to further reduce the salinity of the discharge to the maximum extent feasible, include an estimate on load reductions that may be attained through the methods identified, and provide a description of the tasks, cost, and time required to investigate and implement various elements in the salinity control plan.

14. **By 1 January 2010,** submit a Crop Plan for the Reclamation Area. The Crop Plan must be prepared by a certified soil scientist or agronomic specialist and provide an evaluation on the most appropriate crops to be grown in the Reclamation Area considering soil, climate, and irrigation management system.

15. **By 1 August 2010,** submit a groundwater study to characterize naturally occurring groundwater quality in the immediate area and establish final groundwater limits. The study may require a groundwater well installation work plan to expand the existing monitoring well network to include adequate characterization of naturally occurring groundwater in the area. The study should coincide or be compatible with studies to determine the extent of groundwater degradation beneath the existing Livingston Facility and Reclamation Area.

16. **By 1 August 2010,** and periodically thereafter, but not less than once **every five years**, the Discharger shall document its efforts to promote new or expanded wastewater recycling and reclamation opportunities.

17. If the Central Valley Water Board determines that waste constituents in the discharge have reasonable potential to cause or contribute to an exceedance of an objective for groundwater, this Order may be reopened for consideration of addition or revision of appropriate numerical effluent or groundwater limitations for the problem constituents.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on _____.

_____
PAMELA C. CREEDON, Executive Officer

Order Attachments:
- Monitoring and Reporting Program No. R5-2009-____
- Information Sheet
- A. Site Map
- B. Plan View of Chicken Processing Complex and Reclamation Area
- Standard Provisions (1 March 1991)

KC/DKP 6/2/09

TENTATIVE ORDER